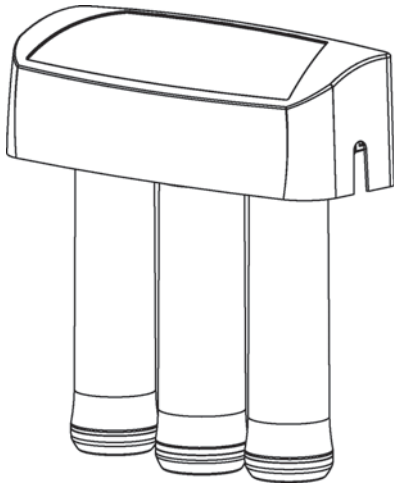
Whirlpool®

Installation and Operation Manual

Model WHER25



How to Install, operate and maintain your Reverse Osmosis Drinking Water System

If you have any questions or concerns when installing, operating or maintaining your Reverse Osmosis System call our toll free number:

1-866-986-3223

Monday- Friday, 8 AM-9PM EST
or visit www.whirlpool.com

System tested and certified by NSF International against NSF/ANSI Standard 42 and 58. See performance data sheet for details.

NSF

7272844 (Rev. A 8/31/05)
Product No. 8576162

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Questions?

Visit www.whirlpool.com
or call Toll Free
1-866-986-3223

Monday- Friday, 8 AM - 9PM EST

Unpack and Check Your Carton

INSPECT SHIPMENT

Your Reverse Osmosis Drinking Water System is shipped complete in one carton. Remove all items from your shipping carton.

Check all items against the packing list below. Note any items lost or damaged in shipment.

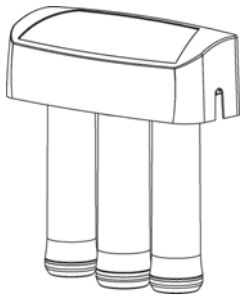
Note any damage to the shipping carton. Refer to the exploded view and parts list in the back of the manual for the part names and numbers of missing or damaged items. If problems exist, refer to the website or the toll free number listed throughout this manual.

Keep the small parts in the parts bag until you are ready to install them.

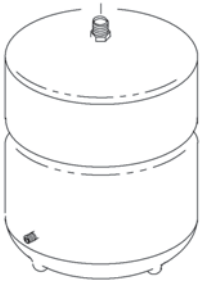
NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.

If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

Packing List

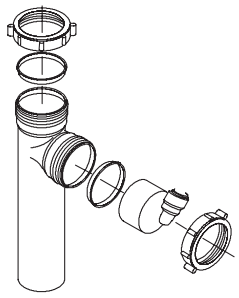


Reverse Osmosis Assembly With Red and Yellow tubes attached



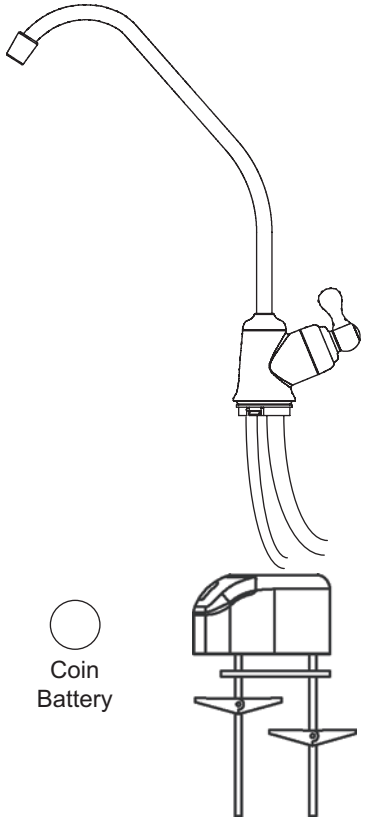
Water Storage Tank

Bag Assembly



Drain Adapter Kit

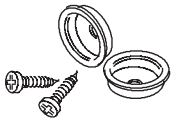
Bag Assembly



Coin Battery

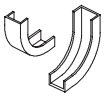
Reverse Osmosis Faucet Assembly with Black and Blue Tubes Attached

Bag Assembly

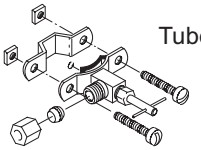


Hanger Brackets

Eye Dropper

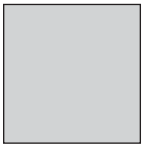


Tube Bends



Saddle Valve

Tank Connector



Nitrate/Nitrite Test Kit

Thread Sealing Tape

Green Supply Tube

Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

Plan Your Installation

PLAN YOUR INSTALLATION

It is recommended to read through the entire manual before beginning your installation. Follow all steps exactly. Reading this manual will also help you get all the benefits from your system.

Your Reverse Osmosis Drinking Water System can be installed under a sink or in a remote location. Typical remote sites are a laundry room or utility room. Review the location options below and determine where you are going to install your system.

UNDER THE SINK LOCATION

The Reverse Osmosis Filter Assembly and storage tank are normally installed in a kitchen or bathroom sink cabinet. See Fig. 2.

A suitable drain point is needed for reject water from the Reverse Osmosis filter.

REMOTE LOCATION

You can also locate the Reverse Osmosis Filter Assembly and storage tank in a remote location away from the Reverse Osmosis Faucet. You will need a nearby water source and drain point.

See Fig. 3.

CHECK SPACE REQUIREMENTS

Check size and position of items for proper installation into location chosen.

TOOLS NEEDED

Review the tools needed list. See Fig. 1. Gather needed tools before proceeding with the installation. Read and follow the instructions provided with any tools listed here.

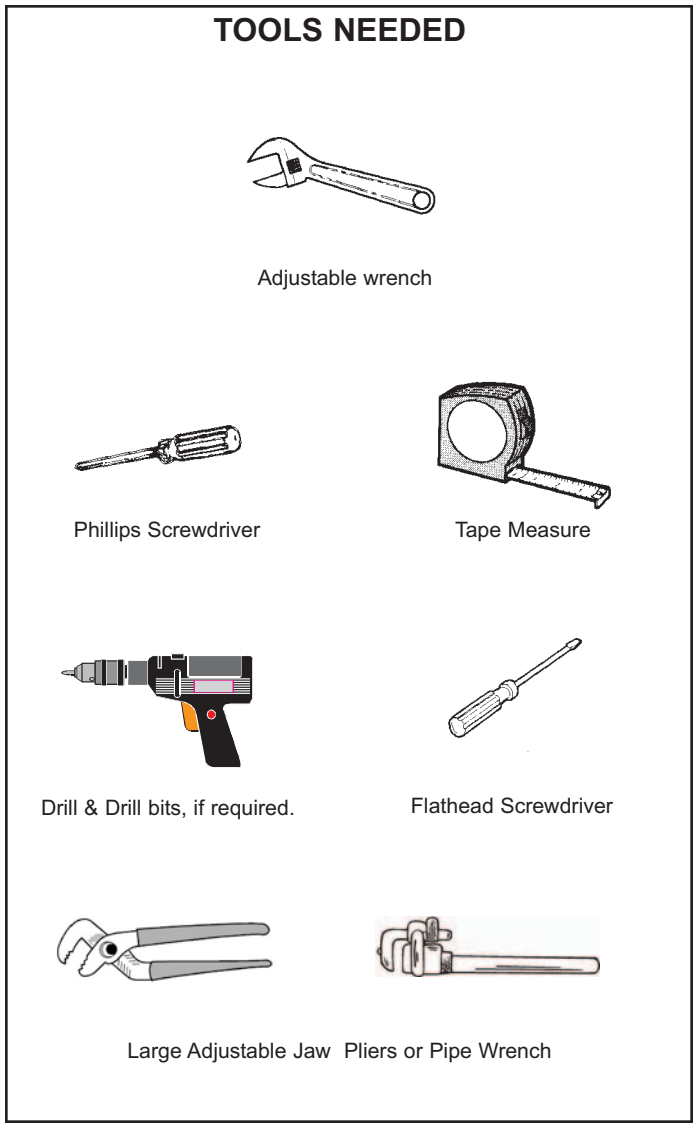
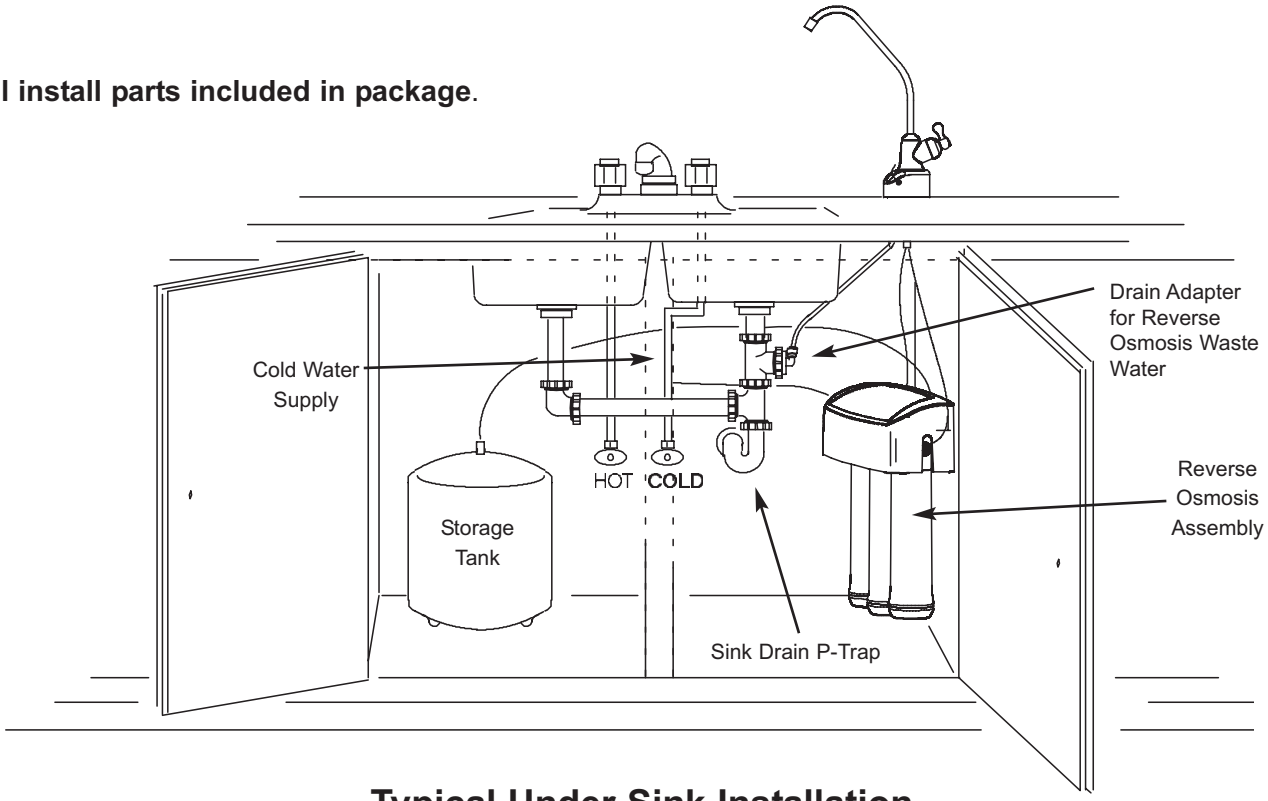


FIG. 1

Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

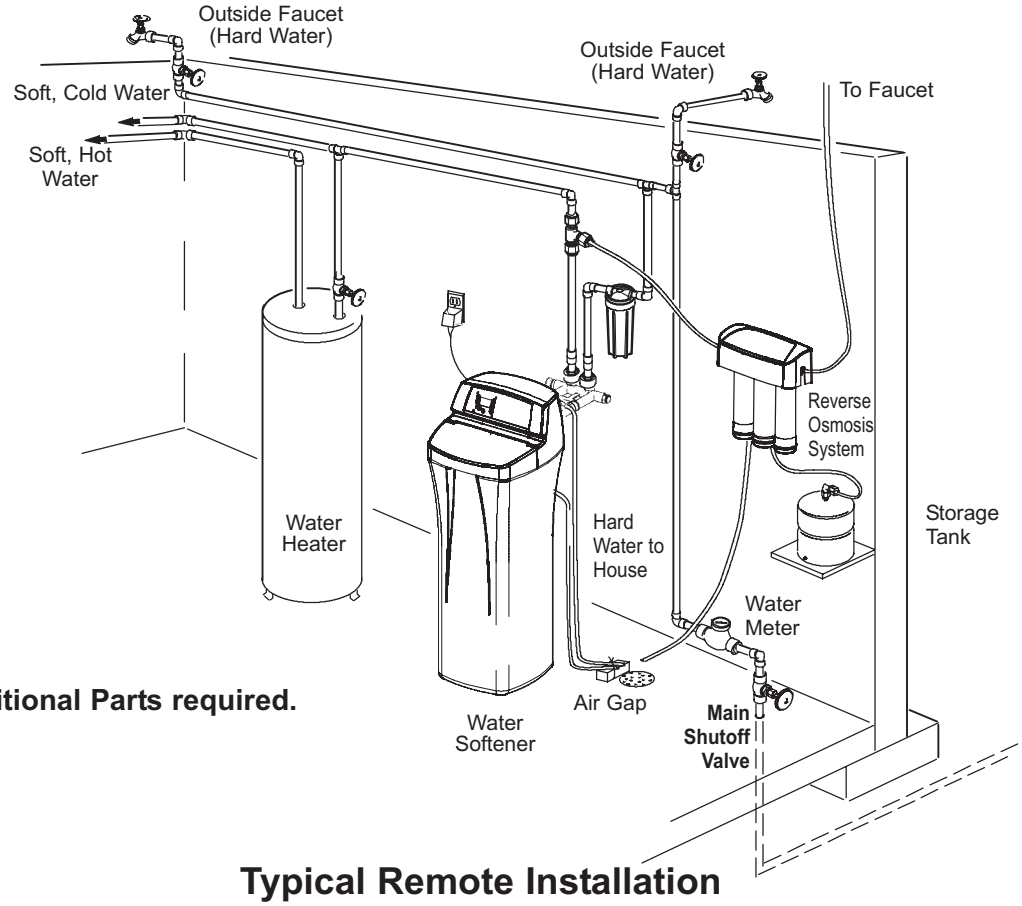
Plan Your Installation

All install parts included in package.



Typical Under Sink Installation

FIG. 2



Additional Parts required.

Typical Remote Installation

FIG. 3

Overview and Site Preparation

OVERVIEW

There are seven easy steps to installing your Drinking Water system. They are as follows:

STEP 1 - Install Cold Water Supply fitting

STEP 2 - Install Drain Adapter

STEP 3 - Install Reverse Osmosis Assembly

STEP 4 - Install Storage Tank

STEP 5 - Install Reverse Osmosis Faucet

STEP 6 - Connect Tubing

STEP 7 - Sanitize, Pressure Test, Purge System

These steps are explained in detail over the next few pages. It is recommended to read through the entire manual before beginning your installation. Follow all steps exactly. Reading this manual will also help you receive and use all the benefits your Reverse Osmosis System can give you.

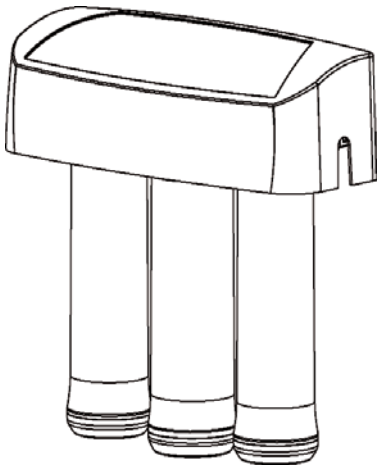


FIG. 4

PREPARE SITE FOR INSTALLATION

1. Close the water shutoff valve that is immediately before saddle valve locations.
2. Temporarily place tank and filter assembly into cabinet. Double check position of items and space required for proper installation.
3. Remove tank and filter from cabinet and set aside.

NOTE: You must check and comply with all local plumbing codes.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.
If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

Step 1 - Install Supply Water Fitting

CHOOSE TYPE OF WATER FITTING TO INSTALL

Locate the cold water line in the sink cabinet. It is recommended, but not required, that the cold water line be soft water. You can use the saddle valve provided with your unit to tap into the cold water line. See Fig. 5. Or you can purchase standard pipe fittings locally such as a compression fitting. The fitting must provide a leak-tight connection to the Reverse Osmosis 1/4" tube.

NOTE: Local code may dictate which type of water fitting is used. Consult a plumber if you are not familiar with local codes or plumbing procedures.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.

If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

INSTALL SADDLE VALVE

(Included with your package)

This fitting will be installed on the cold water pipe. The fitting must provide a leak-tight connection to the Reverse Osmosis 1/4" tubing.

Complete the following steps to install the saddle valve assembly.

1. Review Fig. 5 and familiarize yourself with all parts of the saddle valve. This valve will self-tap a hole in copper tubing or plastic pipe.

2. If installing on iron pipe, drill a 1/8” hole for the piercing pin.
   IMPORTANT: If a battery-powered hand drill is not available and an electric drill is used, ensure that the drill is properly grounded.

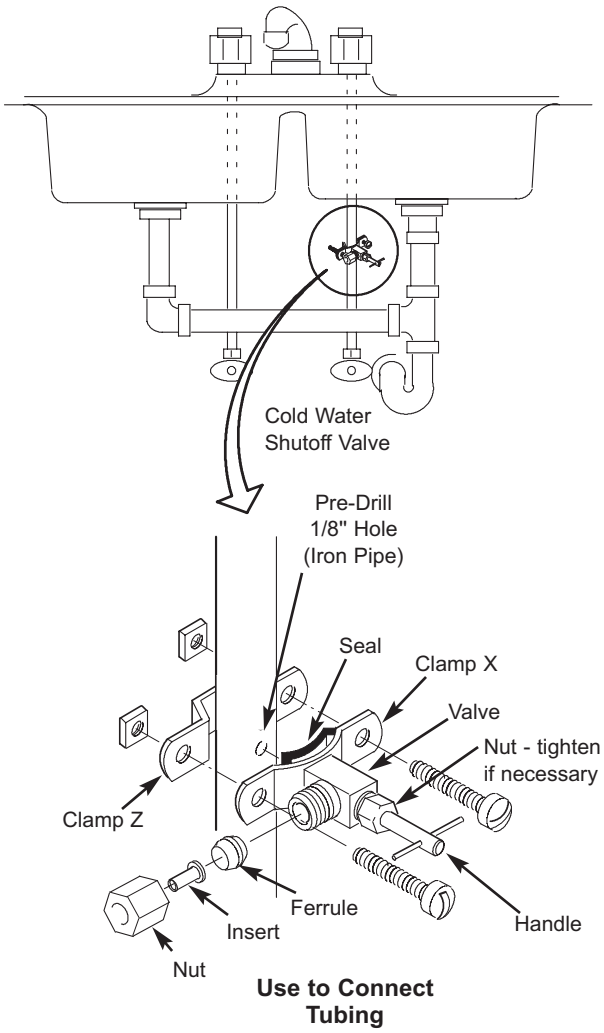
3. Place the seal on the inside of Clamp X. See Fig. 5. Turn the valve handle all the way out.(counter-clockwise) Be sure the piercing pin does not stick out beyond the seal.

4. Place Clamp X and Z around the pipe. Secure in place with two screws. Tighten both screws evenly. Do not over tighten screws. See Fig. 5.

5. Turn the valve handle all the way in. (clockwise) This will pierce the wall of the pipe. See Fig. 5.

6. ***Do not*** connect the tubing to the fitting at this time. This will occur later in the installation.

   NOTE: Once the saddle valve is installed, the nut near the handle may need to be tightened to prevent possible leaks.



Saddle Valve Connection (Included in package)

FIG. 5

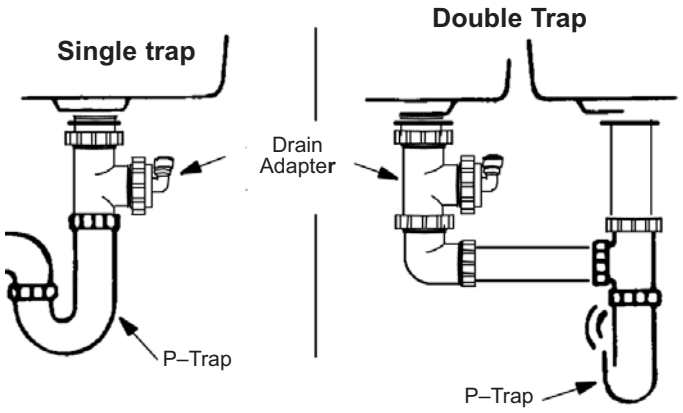
Step 2 - Install RO Drain Under Sink

INTRODUCTION

A suitable drain point is needed for the reject water from the Reverse Osmosis Filter. You have two options to choose from:

- **Install the Drain Adapter included with your unit** See Fig 6, Fig. 7, and Fig. 8. This is used in under the sink installations. The drain adapter kit is installed onto your sink drain pipe above the P-trap. See Fig. 6.
- **Use another existing drain in your home** (See Fig 9, Fig. 10) This is usually used in remote location type installations. The drain tube from the Reverse Osmosis Filter runs directly to an open drain. See Fig. 9 & 10.

NOTE: Local code may dictate which type of drain installation is used. Other than local code, either drain install type may be used in both under the sink or remote location installations. Consult a plumber if you are not familiar with plumbing procedures.



Under The Sink Installation

FIG. 6

INSTALL DRAIN ADAPTER KIT

(Under sink Installation)

In an under the sink installation, you normally use the (P-trap) drain adapter. A drain adapter kit is included in your package. Review the drain adapter kit parts in Fig. 7. The drain adapter is always installed in the sink drain pipe, above or ahead of the P- trap. See Fig. 6 & 8. Be sure to comply with your local plumbing codes. The drain adapter fits 1-1/2" sink drain pipes. Other drain pipe fittings, purchased locally, may be needed in addition to the adapter.

1. Slowly disassemble the sink drain pipe between the sink P-trap and the sink tailpiece. See Fig. 6 & 8.
2. Clean the sink tailpiece to assure a leak-tight fit.
3. Install drain adapter directly onto the sink tailpiece using the ferrule and nut. Snug the nut, but do not tighten. See Fig. 7.
4. Assemble the drain tubing connector to the drain adapter using the ferrule and nut. Snug the nut, but do not tighten. See Fig. 7.
   NOTE: Locate so drain tubing from the Reverse Osmosis faucet will make a straight run to the adapter, without dips, loops, low spots or kinks. See Fig. 8.
5. Turn the connector to about 45° (10:00 or 2:00 position). See Fig. 7. Tighten the nut securely.
6. Assemble the P-trap to the drain adapter, and other drain pipe fittings as required to complete the drain run. See Fig. 6.
   Note: If needed, you can cut the unthreaded end of the adapter to make it fit. Do not cut too short or the adapter will not make a leak-tight seal with the connecting fitting.
7. Tighten all connections, but do not over tighten plastic connections.

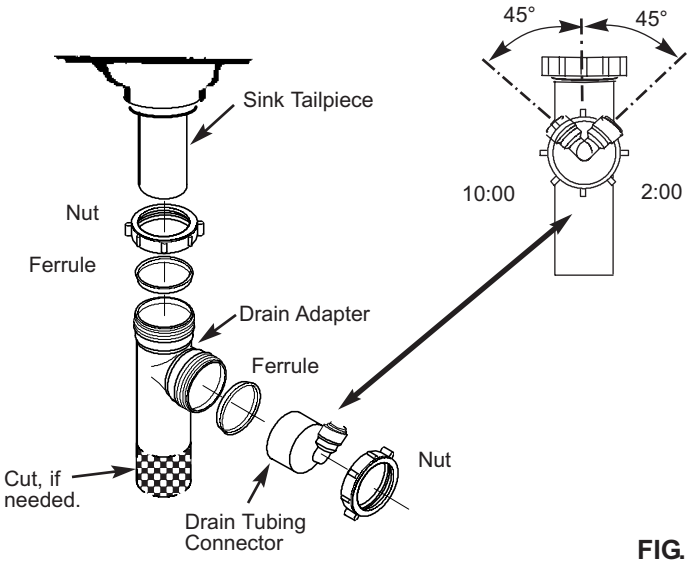
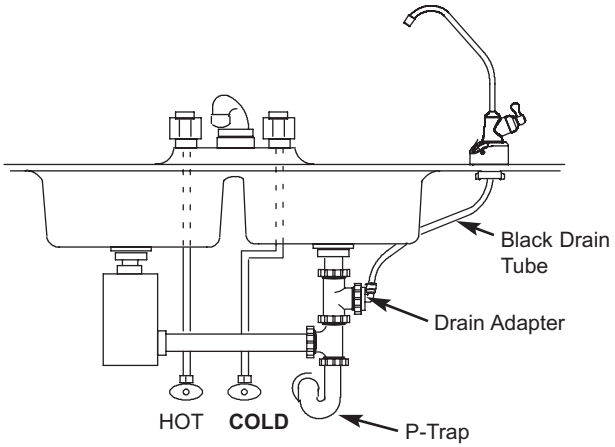


FIG. 7



IMPORTANT: Locate drain adapter so when the black drain tube from the Reverse Osmosis Faucet is installed later on, it will make a straight run to the adapter, without dips, loops, low spots or kinks

FIG. 8

Step 2 - Install RO Drain In Remote Location

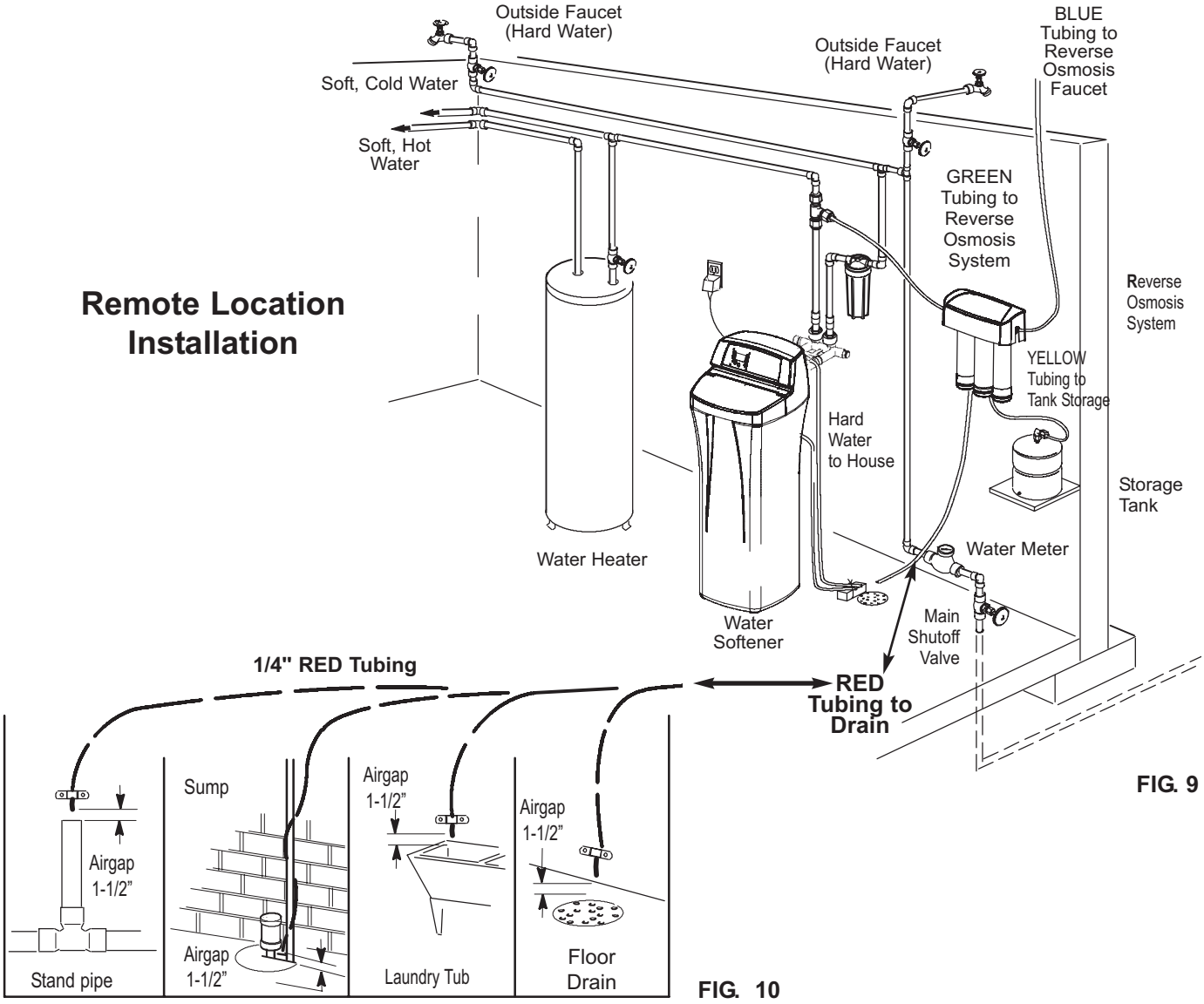


FIG. 9

FIG. 10

INSTALL A REMOTE DRAIN POINT AND AIR GAP (Remote Location)

You can also run the drain tubing to an existing drain in the house. A floor drain, laundry tub, standpipe, sump, etc. are suitable drain points. See Fig. 10. This type of drain is the preferred over the p- trap drain adapter. Check your local codes. Longer lengths of tubing (see parts list in back of manual) may be needed.

Always be sure to provide an air gap between the end of the hose and the drain point. This will prevent water from backing up into the system. Airgaps are required code in most areas.

To install a remote drain point, complete the following steps:

1. Locate the 1/4” red tubing on the Reverse Osmosis filter assembly. See Fig. 9.
2. Determine if this length is long enough to reach the drain point.
3. If not, disconnect the 1/4” red tubing and replace with an adequate length of tubing to reach the drain point. Refer to Step 5 later in the manual on how to disconnect and connect tubing.
   Note: A flow control insert is located in the red tube. Refer to Fig 27. This insert must be saved and placed in the new length of tubing.
4. Run the tubing to the drain point and secure at the end with a bracket (purchased locally). See Fig. 10. Provide a 1-1/2” air gap between the end of the tube and the drain. See Fig. 10.

Step 3: Install RO Filter Assembly

INSTALL REVERSE OSMOSIS FILTER ASSEMBLY

The Reverse Osmosis Filter Assembly is mounted on hanger washers.

See Fig 11. The hanger washers allow you to lift the filter assembly from the washers without any hardware removal. When planning your installation, you need to leave room for changing filters.

Complete the following steps to install your Reverse Osmosis Filter Assembly:

1. Remove the cover.
2. Locate mounting slots on back inside of the assembly. See Fig 11.
3. Hold the assembly up to the wall surface and mark locations for the hanger washers. See Fig 11. This allows room to change filters.
4. Fasten the hanger washers to the wall using the wood screws provided.
5. Hang assembly on washers.
6. Replace cover.

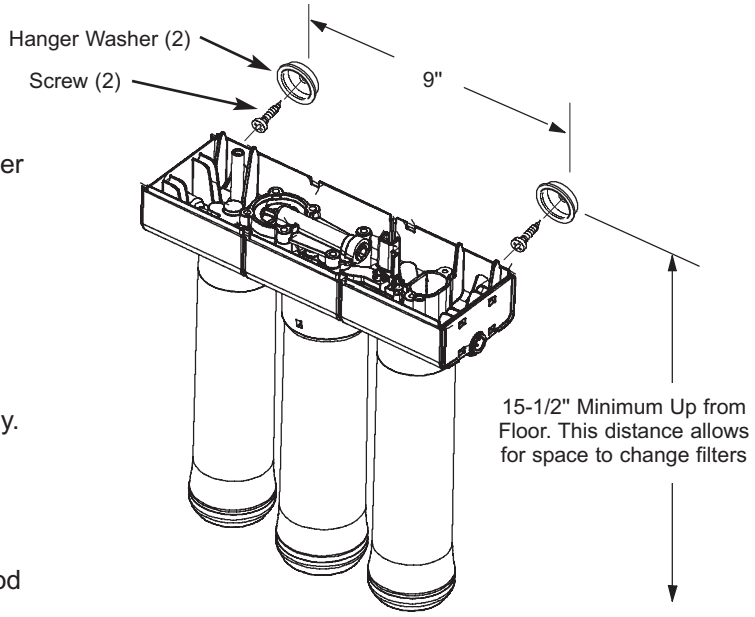


FIG. 11

Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

Step 4 - Install Storage Tank

INSTALL STORAGE TANK

1. Apply thread sealing tape to the threads on the nipple at the top of the tank. See Fig 12.
2. Locate the tubing connector. Hand tighten the tubing connector onto the tank nipple being careful not to cross thread. See Fig 12.
3. Tighten the adapter 1/4 turn with a wrench. See Fig 12.
4. Set the tubing insert and nut aside for now. See Fig 12. Do not connect the tube at this time. This will occur later in the assembly.
5. Place the storage tank next to the Reverse Osmosis Assembly. The tank can be placed upright or on its side.

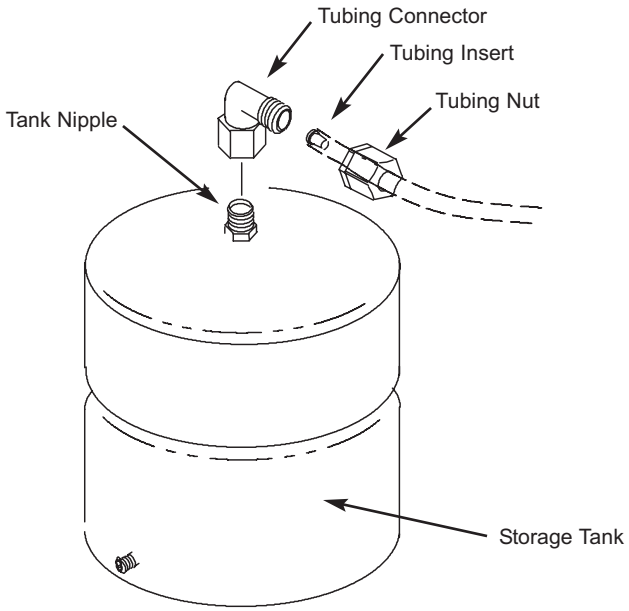


FIG. 12

Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

Step 5: Install RO Faucet

SELECT LOCATION OF REVERSE OSMOSIS FAUCET MOUNTING HOLE

You will need to select the location of the Reverse Osmosis Faucet. You have three options to choose from:

- **Use the existing sink top hole for the spray hose or soap dispenser** (Must be 1-3/8” in diameter)
- **Drill a new hole in the sink**
- **Drill a new hole in the countertop next to the sink**

1. Determine where you are going to install your Reverse Osmosis Faucet.
2. Check to ensure the Reverse Osmosis faucet will mount flat against the mounting surface.
3. Visually review the routing of the tubes from the Reverse Osmosis filter assembly to the faucet. Check to ensure there is adequate tube routing space between the faucet and filter assembly.
3. If drilling is needed, drill a 1-3/8" diameter hole in the mounting surface.
   IMPORTANT: Drilling holes into countertops and sinks should only be performed by a qualified installer who is certified for drilling such materials. Drilling of surfaces made of stone or solid surface materials such as granite, marble, Corian ™ or other plastic resin products or sinks made of porcelain and stainless steel may cause permanent, irreparable damage to the sink or countertop surface.

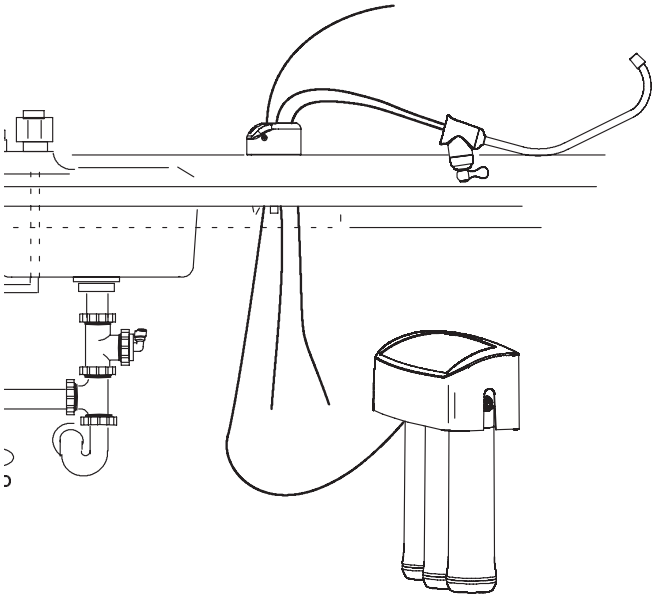


FIG. 13

Step 5: Install RO Faucet

INSTALL REVERSE OSMOSIS FAUCET

1. Locate and organize your RO faucet install parts. Refer to Fig. 14.
2. Mount faucet base to sink hole until the faucet base is square against the sink surface. The rubber gasket should be between the sink surface and the faucet base.
3. Tighten the toggle bolts until the base is firmly mounted to the sink surface. Do not overtighten.
4. Locate the faucet base. (The black and blue tubes are already connected to the faucet.) Insert these tubes into the sink hole until approximately one foot of tube length and the faucet base are left above the counter surface. Do not bend or kink the tubes in the process. See Fig. 13 and 22.
5. Locate the 1/4" red tubing. One end is connected to the RO Filter assembly. See Fig 22. Locate the loose end.
   A. Route red tube through countertop to faucet.
   B. Cut the loose end of the red tube square and to length. See Fig. 22.

Note: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

   C. Insert all the way onto the 1/4" faucet barb fitting on faucet. See Fig. 15.
   D. Pull on the tubing to be sure it is held firmly in the fitting.

NOTE: If you ran the red reverse osmosis drain tubing directly to a remote drain point, disregard step 3 and refer to instructions on page 9.

6. Mount the faucet body on to the faucet base, 1/4 turn.

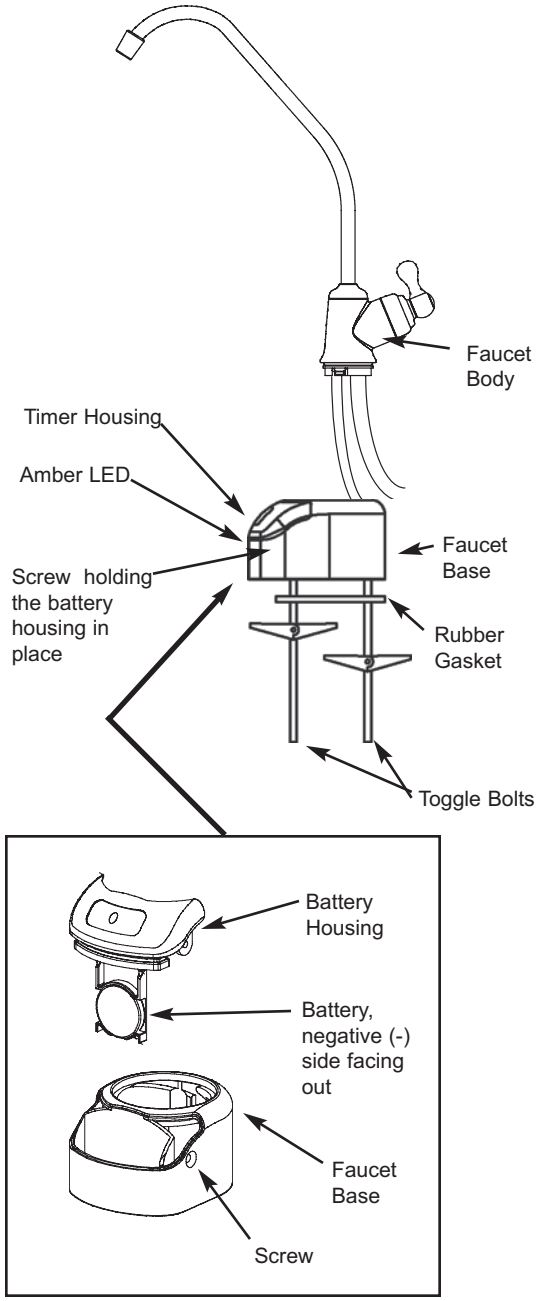


FIG. 14

FAUCET ELECTRONICS

Inside the faucet base is a battery operated 6 month timer. See Fig. 14.

An amber LED indicator is also located in the front of the faucet base. This LED will flash continuously after 6 months has passed. This indicates that it is time to replace the battery, prefilters and postfilters.

INSTALL BATTERY

To install battery, complete the following steps.

1. Loosen the screw on the right side of the faucet base. See Fig. 14.
2. Press the battery housing upwards from the front faucet base until it releases from the faucet base. See Fig. 14.
3. Replace the battery (CR 2032 or equivalent). Place the positive (+) side down into the holder.
4. When the battery is first replaced it will flash six times and turn off. This indicates the battery is fully charged. After the six flashes the timer enters the 6 month time cycle. If it repeatedly flashes just two times, it is not a fully charged battery and will need to be replaced.
5. Re-install the timer housing and firmly tighten the mounting screw. See Fig. 14.

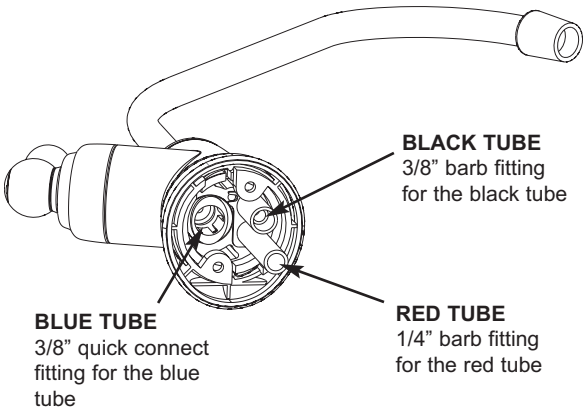

BLACK TUBE
3/8” barb fitting for the black tube
BLUE TUBE
3/8” quick connect fitting for the blue tube
RED TUBE
1/4” barb fitting for the red tube

FIG. 15

Step 6 - Connect Tubes

HOW TO CUT AND CONNECT THE TUBES

Your Reverse Osmosis Water System includes push-in fittings for quick tubing connection. Review the following instructions before connecting the tubes in the next step.

Cut tubes to length

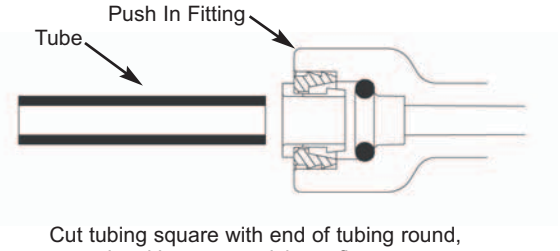
1. Use a sharp cutter or knife to cut the end of tubing. Always cut the tubing square. See Fig. 17.
2. Inspect the end (about 1") of the tubing to be sure there are no nicks, scratches or other rough spots. If needed, cut the tubing again. See Fig. 17.
   Note: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

Connect tubes

1. Push tubing through collet, until it engages the o-ring. See Fig. 18. Continue pushing until the tube bottoms out against the back of the fitting. See Fig. 19. A common mistake is to stop pushing when the tube engages the o-ring. This will lead to future leaks. When a 1/4" tube is fully engaged, 11/16" of the tube has entered the fitting. When a 3/8" tube is fully engaged, 3/4" of the tube has entered the fitting. See Fig. 18 & 19.
2. If using tubing other than tubing supplied with the system, be sure it is of high quality, exact size and roundness with a smooth surface.

Disconnect Tubes

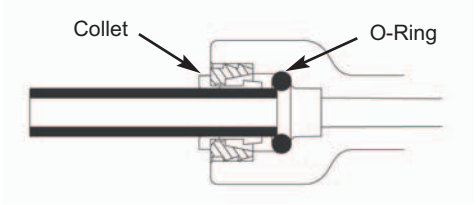
1. Push the collet inward with a finger tip. See Fig.21.
2. Continue holding collet inward while pulling the tubing out. See Fig. 21.



Cut tubing square with end of tubing round, smooth, with no cuts, nicks or flat spots.

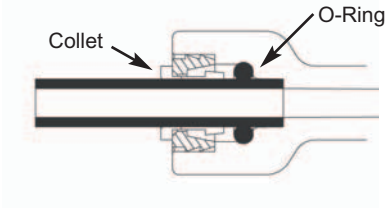
Tube Correctly Cut

FIG. 17



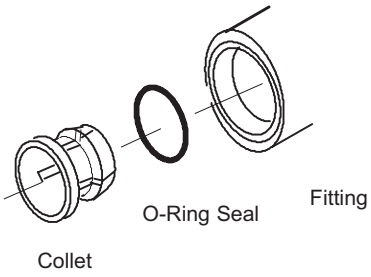
Tube Partially Engaged With Fitting

Fig. 18



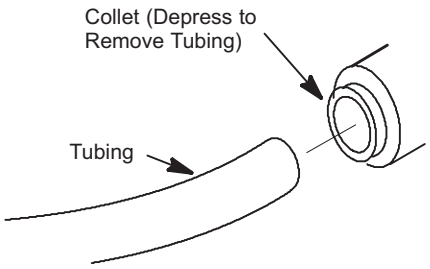
Tube Fully Engaged With Fitting

FIG. 19



Collet and O-ring

FIG. 20

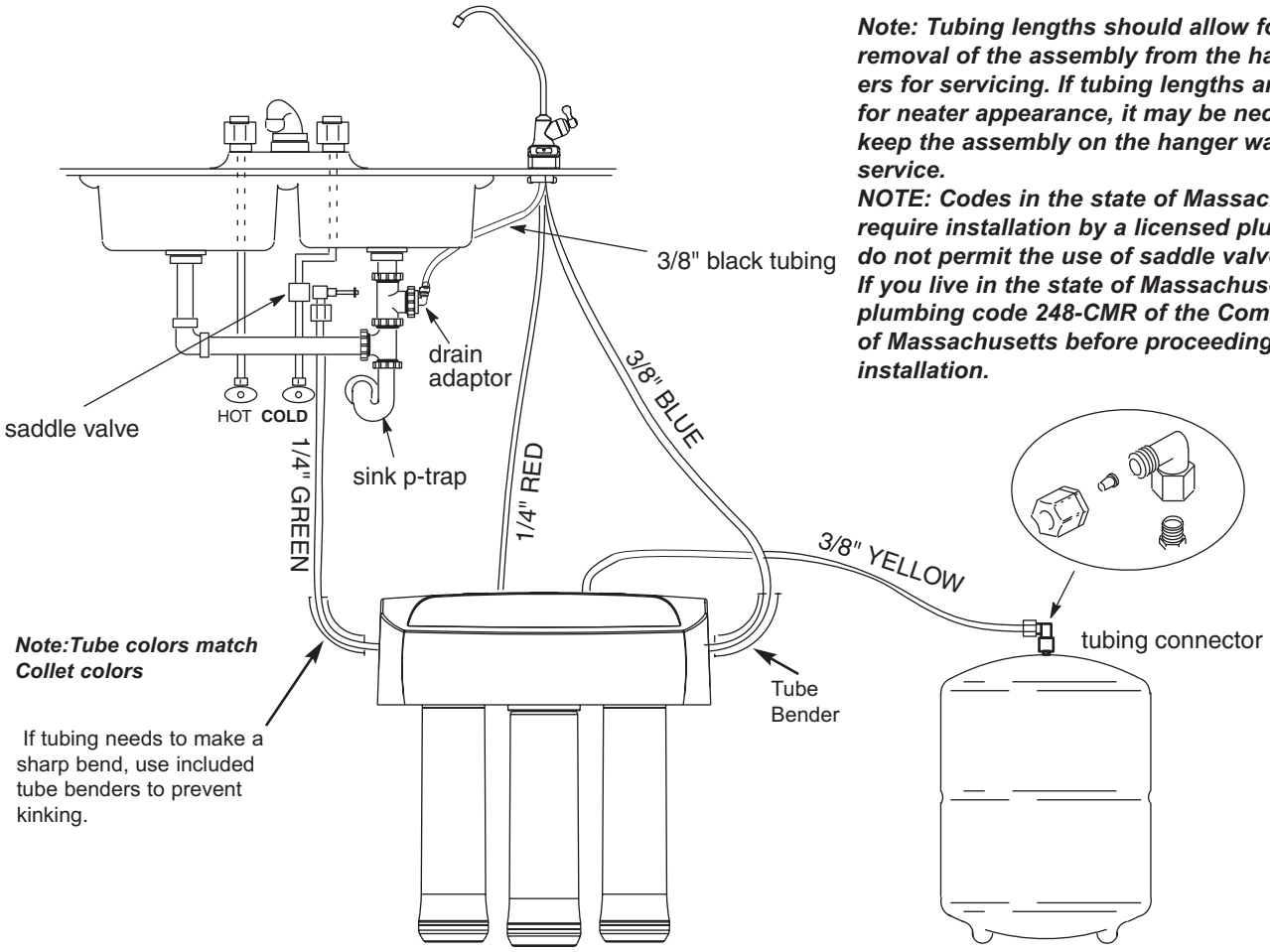


Disconnect Tubing

FIG. 21

Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

Step 6 - Connect Tubes



Note: Tubing lengths should allow for the removal of the assembly from the hanger washers for servicing. If tubing lengths are shortened for neater appearance, it may be necessary to keep the assembly on the hanger washers for service.

NOTE: Codes in the state of Massachusetts require installation by a licensed plumber and do not permit the use of saddle valves.

If you live in the state of Massachusetts, review plumbing code 248-CMR of the Commonwealth of Massachusetts before proceeding with the installation.

Tube Connections

FIG. 22

CONNECT YELLOW TUBE TO STORAGE TANK

1. Locate the yellow tube. One end is attached to the Reverse Osmosis filter assembly.
2. Run the other end of the yellow tube to the fitting on top of the storage tank. See Fig. 22.
3. Cut tube square and to length. See Fig. 17.
4. Do not connect at this time. This will occur in the sanitizing step.

CONNECT GREEN TUBE TO COLD WATER SUPPLY PIPE

1. Run one end of the 1/4” green tube to the fitting on the water supply pipe. See Fig. 22.
2. Cut tube square and to length. See Fig. 17.
3. Connect to saddle valve. (This is a compression fitting.)
4. Run the other end of the green tube to green collet to the fitting on the left side of the Reverse Osmosis filter assembly.
5. Cut tube square and to length. See Fig. 17.
6. Insert all the way into the fitting. See Fig. 18 & 19.
7. Pull on the tube to be sure it is held firmly in the fitting.

CONNECT RED TUBE TO REVERSE OSMOSIS FAUCET

The red tube connection was completed in the faucet assembly steps.

CONNECT BLUE TUBE TO REVERSE OSMOSIS ASSEMBLY

1. Locate the blue tube. One end is attached to the faucet.
2. Run the other end of the 1/4" blue tube to the blue collet on the right side of the Reverse Osmosis filter assembly.
3. Cut tube square and to length. See Fig. 17.
4. Insert all the way into the fitting. See Fig. 18 & 19.
5. Pull on the tube to be sure it's held firmly in the fitting.

CONNECT BLACK TUBE FROM REVERSE OSMOSIS FAUCET TO DRAIN ADAPTER

1. Locate the 30" length of 3/8" black tube. One end is attached to the faucet. Fig 22.
2. The other end needs to be attached to the black collet on the sink drain adapter.
3. Cut this tube as needed to route in as straight of a run as possible, without loops, dips, low spots or kinks.
4. Cut the end of the tube square. See Fig. 17.
5. Insert all the way into the fitting. See Fig. 18 & 19.
6. Pull on the tube to be sure it is held firmly in the fitting.

Step 7 - Sanitize, Test and Purge System

SANITIZE THE SYSTEM

Sanitizing is recommended immediately after installation of the Reverse Osmosis system. It's also recommended after servicing inner parts. It is important that the person installing or servicing the system have clean hands while handling inner parts of the system.

Complete the following steps to sanitize the system. See Fig. 23.

1. Turn off the water supply to the Reverse Osmosis system.
2. Open the Reverse Osmosis faucet.
3. Locate an eyedropper included in package and common household bleach (5.25%).
4. Add 3 ml. of bleach into open end of yellow tank tubing. Handle bleach according to bleach manufacturer's recommendations. See Fig. 23.
5. Connect yellow tank tubing to tank connector. See Fig. 12 and 23.
6. Sanitizing the system will be completed during the pressure test and purging steps on the following page.
   Note: The bleach must be removed from the system before drinking the water. See purging instructions on the next page.

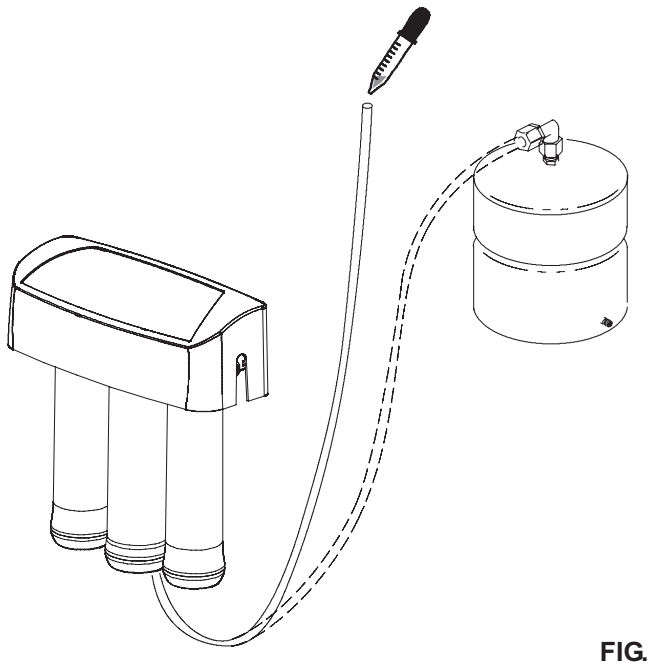


FIG. 23

Step 7 - Sanitize, Test and Purge System

PRESSURE TEST THE SYSTEM

Note: Complete the sanitizing procedures on the preceding page before pressure testing.

To pressure test the system, complete the following steps.

1. Open the water supply valve to the Reverse Osmosis System. See Fig. 24.
2. Open the main water supply valve and several house faucets. This will purge air from the house plumbing and system. Close faucets when water runs smooth. See Fig. 24.
3. Pressure will start to build in the RO system in about 2 hours Carefully check all fittings and connections as the system builds pressure. Check for water leaks. Fix leaks if any are found. If problems exist, refer to the troubleshooting chart or call the toll free number. (See number below)
   Note: When the system is first pressurized, water may "spurt" from the faucet air gap hole until air is expelled from the RO system.

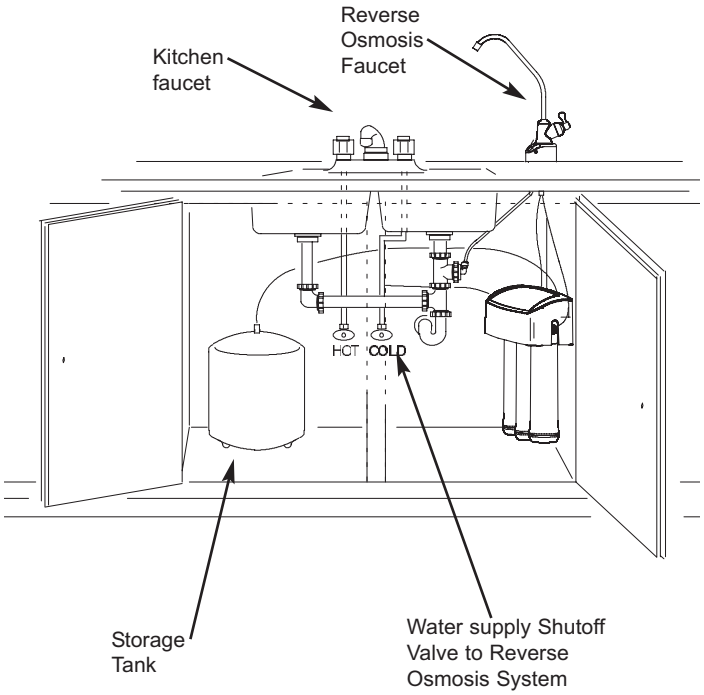


FIG. 24

Please review the following operating features before using your Reverse Osmosis System:

You will ***not*** have filtered water immediately. It may take 1-3 hours to completely fill the storage tank and create maximum flow from the Reverse Osmosis faucet.

Water Pressure from the Reverse Osmosis faucet will be less than your standard faucet due to the high level of filtration performed by the system.

Water will run to the drain while the Reverse Osmosis system is producing purified water, even if you are not drawing water from the Reverse Osmosis faucet. You may hear a small quantity of water going to the drain for a couple of hours. Water going to the drain will automatically shut off when the storage tank is full.

PURGING THE SYSTEM

To purge the system, complete the following steps.

1. Open the Reverse Osmosis Faucet and let water through the system for a 24 hour period.
   Note: Water flow will be a slow trickle at this time.
2. Close the Reverse Osmosis faucet after the 24 hour purging period is complete.
3. When the purging is finished, your Reverse Osmosis system is ready for use.

How Your RO Water System Works

HOW YOUR REVERSE OSMOSIS SYSTEM WORKS

Introduction: Your Reverse Osmosis (RO) Drinking Water System uses your household water pressure to force water through three filters. Minerals and impurities are filtered out. Delicious tasting drinking water goes to the storage tank-ready for your use. Minerals and impurities are sent down the drain. The following paragraphs will explain in detail how your Reverse Osmosis Drinking Water System works.

Prefilter: Water from the cold supply pipe enters the prefilter. See Fig. 25. The prefilter has a replaceable sediment cartridge with activated carbon in its composition. The cartridge removes taste, odor, sand, silt, dirt, other sediments, and up to the amount of chlorine shown in the specifications.

Reverse Osmosis Cartridge: Filtered, chlorine-free water flows from the prefilter, to the Reverse Osmosis membrane cartridge. See Fig. 25. The Reverse Osmosis cartridge is a tightly wound special membrane. The membrane removes the dissolved solids and organic matter. High quality product water (about one ounce per minute) exits the Reverse Osmosis cartridge. The product water flows to the storage tank, postfilter or Reverse Osmosis faucet. See Fig. 25. Reject water, with the dissolved solids and organic matter, is routed to the drain. See Fig. 25.

Storage Tank: The storage tank holds up to 2.3 gallons of product water. See Fig. 25. A diaphragm inside the tank holds water pressurized to about 30 psi when the tank is full. This provides fast flow to the Reverse Osmosis faucet. When the tank is empty of water, it is pressurized to 5 - 7 psi.

Postfilter: Before going to the Reverse Osmosis faucet, product water goes through the postfilter. See Fig. 25. The postfilter is an activated carbon type filter. Any remaining tastes and odors are removed from the product water. Taste-free, odor-free, clean, high quality drinking water is available at the faucet.

Reverse Osmosis Faucet: The sink or countertop faucet has a hand operated knob to access drinking water. See Fig. 25. An air-gap is built into the faucet drain water connection to comply with plumbing codes. See Fig. 25.

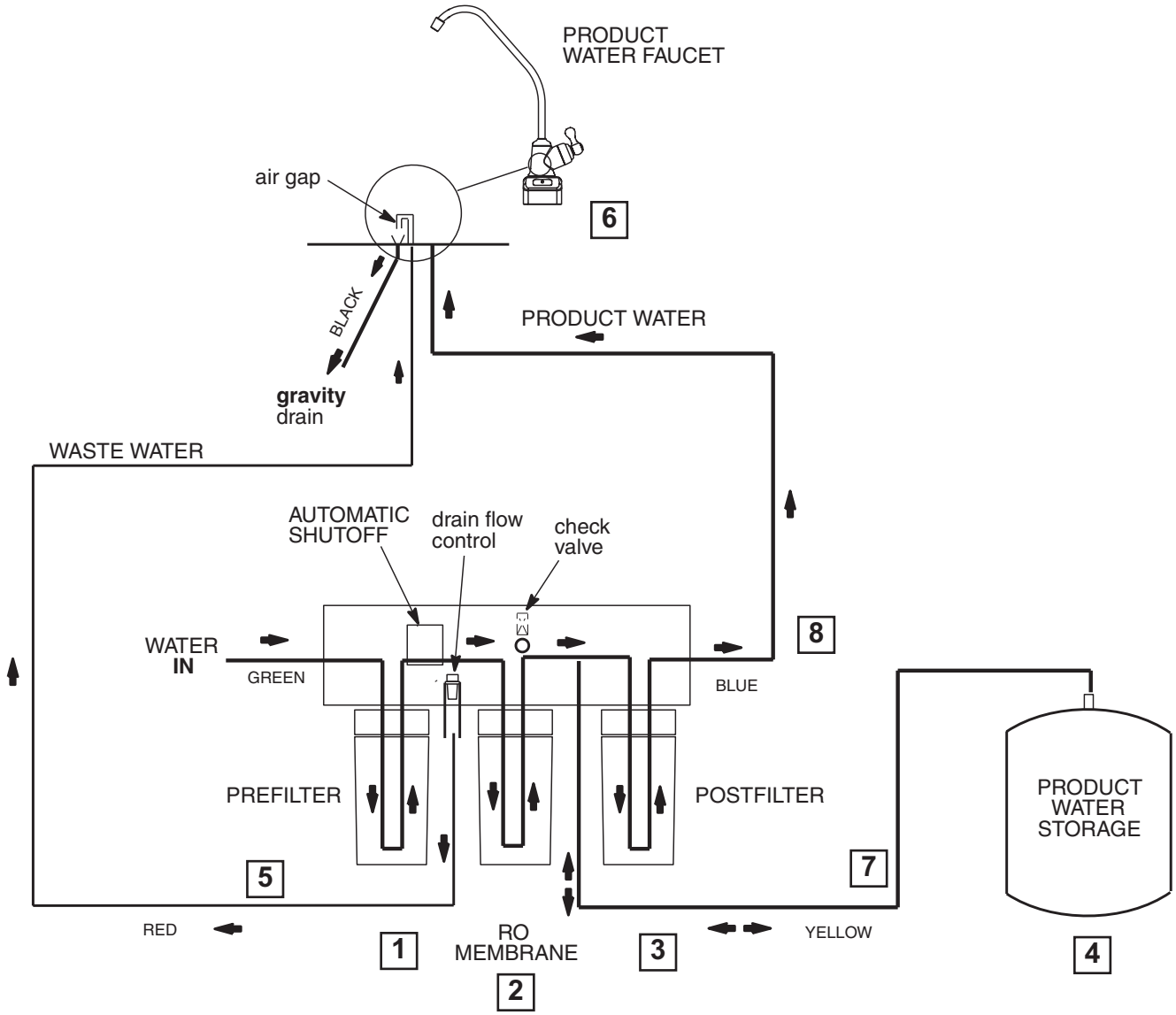
Faucet Electronics: Inside the faucet base is a battery operated 6 month timer. See Fig. 14.
An amber LED indicator is also located in the front of the faucet base. This LED will flash continuously after 6 months have passed. This indicates that it is time to replace the battery, prefilters and postfilters.

Shutoff Assembly: The unit has an automatic shutoff system to conserve water. When the storage tank has filled to capacity, and the drinking water faucet is closed, pressure closes the shutoff to stop flow to the drain. After enough drinking water is used, pressure in the system drops, and the shutoff opens to allow the tank to be refilled. See Fig. 25.

Check Valve: A check valve is located in the Reverse Osmosis manifold, above the center sump. The check valve prevents a backward flow of product water from the storage tank to drain. A backward flow could damage the Reverse Osmosis Membrane. See Fig. 25.

Flow Control: Water flow to the drain is restricted by the flow control. It maintains the desired flow rate to obtain the highest quality drinking water. The flow control is located in the end of the 1/4" red drain tubing, at the Reverse Osmosis manifold drain port. See Fig. 25.

How Your RO Water System Works



Reverse Osmosis Water Flow Schematic **FIG. 25**

Water Flow Description

1. Water enters prefilter. Sand, silt and other sediments are removed. Chlorine is also removed. See Fig. 25.
2. Water leaves prefilter and proceeds to the Reverse Osmosis Cartridge. See Fig. 25.
3. Water enters the Reverse Osmosis membrane. Dissolved solids are removed. See Fig. 25.
4. Processed water leaves the Reverse Osmosis Membrane and flows to the storage tank. See Fig. 25.
5. Waste water with dissolved solids leave the Reverse Osmosis membrane and flows to the drain. See Fig. 25.
6. Faucet is activated. See Fig. 25.
7. Processed water leaves the storage tank and flows to the post filter filtered to ensure fresh taste. See Fig. 25.
8. Water flows to the Reverse Osmosis faucet. See Fig. 25.

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Maintenance

PREFILTER/POSTFILTER MAINTENANCE

NOTE: It is recommended to replace the battery, prefilter and postfilter cartridges at least every 6 months of product water use. Replace more often if they begin to plug with sediments.

The prefilter and postfilter are replaceable sediment cartridges with activated carbon in its composition. See Fig. 26. You must periodically replace the prefilter and postfilter cartridge. This will protect the RO membrane from being destroyed by chlorine. It will also prevent the filters from plugging with sediments.

You may notice a slower output of product water as the prefilter and postfilters build up with sediments. Replace the prefilter and postfilter cartridges when this occurs. You should replace the battery whenever you replace the cartridges.

RO MEMBRANE CARTRIDGE MAINTENANCE

The Reverse Osmosis cartridge is a tightly wound special membrane. See Fig. 26.The membrane removes the *dissolved* solids and organic matter. The life of the Reverse Osmosis membrane cartridge depends mostly on the pH of the supply water. (see specifications). Cartridge life is shorter with higher pH. For example, if supply water pH is from 6.8 to 7.7, the cartridge may last for well over one year. However, cartridge life may be as short as 6 months if the pH is as high as 8.5 to 10. Higher pH weakens the cartridge membrane and causes pin-hole leaks. It's time to replace the Reverse Osmosis cartridge when the production rate and/or quality of product water drops. Product water may begin to taste different or bad, indicating solids and organics are passing through the Reverse Osmosis membrane. See Reverse Osmosis cartridge replacement.

REVERSE OSMOSIS CARTRIDGE REPLACEMENT

Complete the following steps to replace the cartridges.

1. Remove (turn to the left) the pre filter cartridge from the filter head to relieve pressure on the Reverse Osmosis cartridge.
2. Remove the Reverse Osmosis cartridge.
3. Remove the post filter cartridge.
4. Discard the cartridges in a proper manner.
5. Install new cartridges in reverse order (post filter, Reverse Osmosis and then prefilter). Turn cartridges to the right to re-attach to the filter heads.
6. Remove and replace the timer battery. See Fig. 14.
7. Purge the Reverse Osmosis membrane cartridge. See page 17 for instructions.

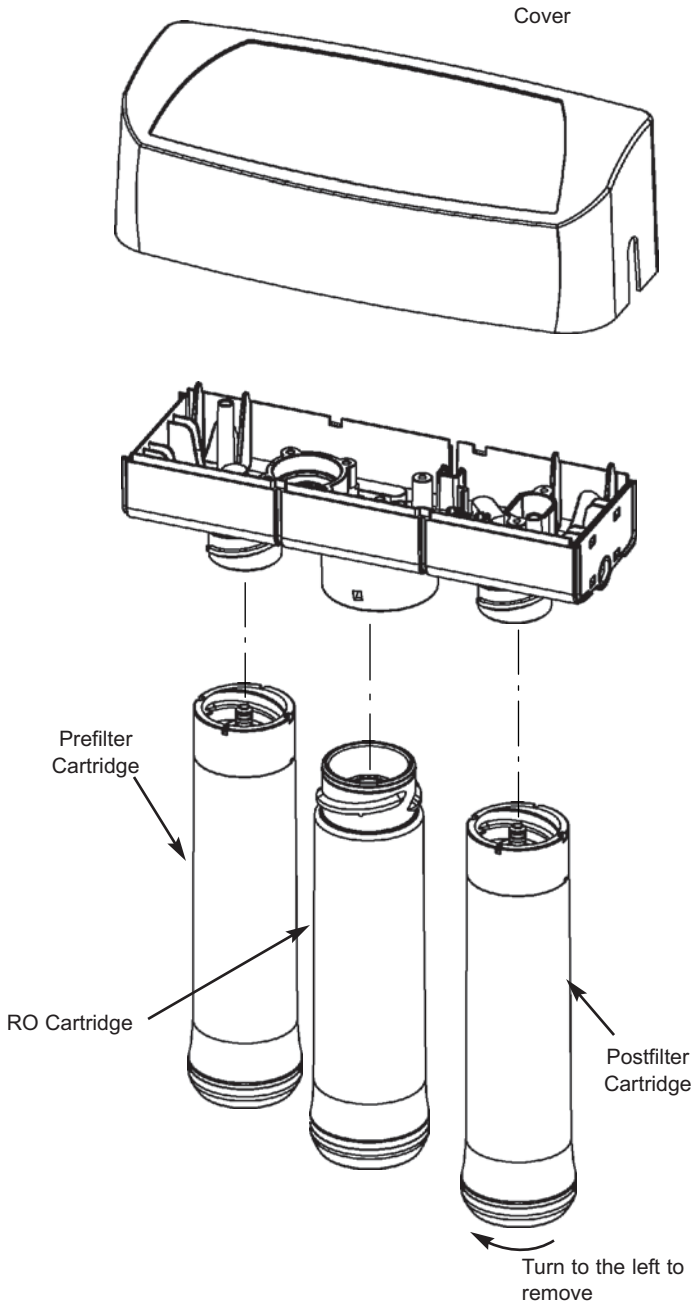


FIG. 26

PREFILTER/POSTFILTER CARTRIDGE REPLACEMENT

Complete the following steps to replace the cartridges.

1. Remove the pre filter cartridge (turn to the left) from the filter head. Then remove the post filter cartridge.
2. Discard the cartridges in a proper manner.
3. Install new cartridges in reverse order (post filter first, then pre filter). Turn cartridges to the right to re-attach to the filter heads.
4. Remove and replace the timer battery. See Fig. 14.
5. Purge the Reverse Osmosis membrane cartridge. See page 17 for instructions.

Maintenance

FLOW CONTROL

The flow control is vital for proper operation of the Reverse Osmosis membrane cartridge. See Fig. 27. The control keeps water flowing through the membrane at the required rate. This is to ensure the system produces the best quality product water.

Periodically check the flow control assembly to be sure the small hole through it is clean and unrestricted.

If the flow control assembly requires service, review the exploded view in Fig. 27. Assemble and disassemble as shown.

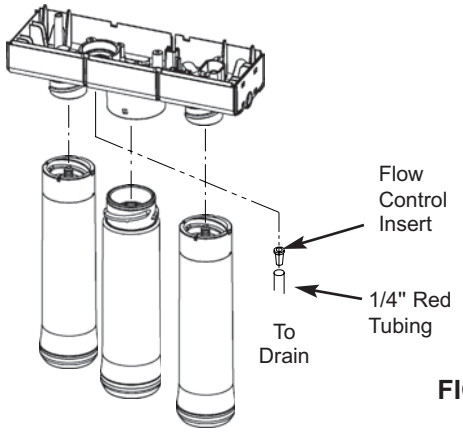
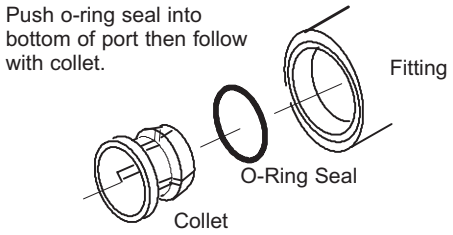


FIG. 27

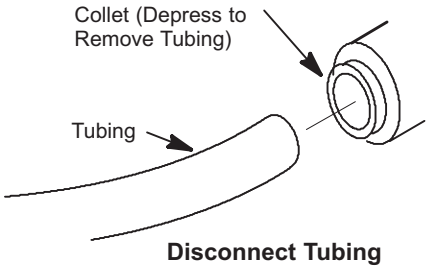
CHANGE COLLET AND O-RING

1. Remove the collet and o-ring from the fitting with a small screwdriver. Be careful not to scratch the internal walls of the collet port. See Fig. 28-29.
2. Clean collet port, lubricate and insert the o-ring seal into the bottom of the port. See Fig. 28-29.
3. Push the collet inward until it locks in place.See Fig. 28-29.



Change Collet and O-ring

FIG. 28



Disconnect Tubing

FIG. 29

CHANGE BATTERY

To change battery, complete the following steps.

1. Loosen the screw on the right side of the faucet base. See Fig. 30.
2. Press the battery housing upwards from the front faucet base until it releases from the faucet base. See Fig. 30.
3. Replace the battery. (Maxell-CR 2032 or equivalent)
4. When the battery is first replaced it will flash six times and turn off. This indicates the battery is fully charged. After the six flashes the timer enters the 6 month time cycle. If it repeatedly flashes just two times, it is not a fully charged battery.
5. Re-install the battery housing and firmly tighten the mounting screw. See Fig. 30.

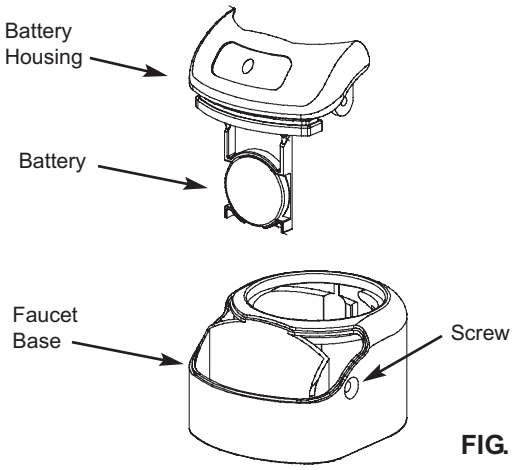


FIG. 30

Specifications

Supply water pressure limits	40-100 psi (280-689 kPa)
Supply water temperature limits	40-100 °F (5-40°C)
Maximum total dissolved solids (TDS)	2000 ppm
Maximum water hardness @ 6.9 pH	10 gpg
Maximum iron, manganese, hydrogen sulfide	0
Chlorine in water supply (max. ppm)	2.0
Supply water pH limits (pH)	4-10
Product (quality) water, 24 hours [1]	14.53 gal. (55 liters)
Waste water per gallon of product water [1]	5 gal. (18.9 liters)
Percent rejection of TDS, minimum (new membrane)[1]	90-95
Storage tank capacity (max.)	1.7 gal. (6.4 liters)
Automatic shutoff control	yes
Efficiency[2]	9.7 %
Recovery[3]	19.7 %

This system conforms to NSF/ANSI 58 for the specific performance claims as verified and substantiated by test data.

[1]@ Feed water supply at 50 psi, 77°F, and 750 TDS --- Quality water production, amount of waste water and percent rejection all vary with changes in pressure, temperature and total dissolved solids.

[2]Efficiency rating means the percentage of the influent water to the system that is available to the user as reverse osmosis treated water under operating conditions that approximate typical daily usage.

[3]Recovery rating means the percentage of the influent water to the membrane portion of the system that is available to the user as reverse osmosis treated water when the system is operated without a storage tank or when the storage tank is bypassed.

Non-potable Water Sources: Do not attempt to use this product to make safe drinking water from non-potable water sources. Do not use the system on microbiologically unsafe water, or water of unknown quality without an adequate disinfection before or after the system. This system is certified for cyst reduction and may be used on disinfected water that may contain filterable cysts.

Arsenic Reduction: This system shall only be used for arsenic reduction on chlorinated water supplies containing detectable residual free chlorine at the system inlet. Water systems using an inline chlorinator should provide a one minute chlorine contact time before the reverse osmosis system.

Nitrate/Nitrite Test Kit: This system is acceptable for treatment of influent concentrations of no more than 27mg/L nitrate and 3mg/L nitrite in combination measured as N. It is certified for nitrate/nitrite reduction only for water supplies with a pressure of 280 kPa (40 psig) or greater. This system is supplied with a nitrate/nitrite test kit. Product water should be monitored periodically according to the instructions provided with the test kit.

TDS Test Kits: TDS test kits are available by calling 1--800--826--8553 ext. 47, or check the water testing section of your local phone directory.

Installations In The Commonwealth Of Massachusetts: The Commonwealth of Massachusetts requires installation be performed by a licensed plumber. Plumbing code 248--CMR of the Commonwealth of Massachusetts must be followed in these cases.

Product Water Testing: The Reverse Osmosis System contains a replaceable treatment component critical for the effective reduction of total dissolved solids. Product water should be tested periodically to verify that the system is performing properly.

Replacement of the reverse osmosis component: This reverse osmosis system contains a replaceable component critical to the efficiency of the system. Replacement of the reverse osmosis component should be with one of identical specifications, as defined by the manufacturer, to assure the same efficiency and contaminant performance.

Warranty

ONE YEAR LIMITED WARRANTY ON REVERSE OSMOSIS DRINKING WATER SYSTEM
(Except filter cartridges and R. O. membrane)

Warrantor: Ecodyne Water Systems Inc., 1890 Woodlane Drive, Woodbury, MN 55125

Warrantor guarantees, to the original owner, that the Reverse Osmosis Drinking Water System, when installed and maintained in accordance with the instructions, will be free from defects in materials and workmanship for a period of one year from date of installation. If, within the first year, a part proves, after inspection, to be defective, Warrantor will, at its sole option, either replace or repair the part without charge except normal shipping and installation charges. Labor to maintain the equipment is not part of the warranty. Filters and membranes, which are expendable, are not covered by the warranty.
TO OBTAIN WARRANTY PARTS, SIMPLY CALL 1-866-986-3223, Monday - Friday, 8 am - 9 pm EST, for assistance. This warranty applies only while this product is in use in the United States.

General Provisions

The above warranties are effective provided the Reverse Osmosis Drinking Water System is operated at water pressures not exceeding 125 psi, and at water temperatures not exceeding 100°F; provided further that the Reverse Osmosis Drinking Water System is not subject to abuse, misuse, alteration, neglect, freezing, accident or negligence; and provided further that the Reverse Osmosis Drinking Water System is not damaged as the result of any unusual force of nature such as, but not limited to, flood, hurricane, tornado or earthquake.
Warrantor is excused if failure to perform its warranty obligations is the result of strikes, government regulation, materials shortages, or other circumstances beyond its control.

***THERE ARE NO WARRANTIES ON THE REVERSE OSMOSIS DRINKING WATER SYSTEM BEYOND THOSE SPECIFICALLY DESCRIBED ABOVE. ALL IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ARE DISCLAIMED TO THE EXTENT THEY MIGHT EXTEND BEYOND THE ABOVE PERIODS. THE SOLE OBLIGATION OF WARRANTOR UNDER THESE WARRANTIES IS TO REPLACE OR REPAIR THE COMPONENT OR PART WHICH PROVES TO BE DEFECTIVE WITHIN THE SPECIFIED TIME PERIOD, AND WARRANTOR IS NOT LIABLE FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES. NO WARRANTOR DEALER, AGENT, REPRESENTATIVE, OR OTHER PERSON IS AUTHORIZED TO EXTEND OR EXPAND THE WARRANTIES EXPRESSLY DESCRIBED ABOVE.**

Some states do not allow limitations on how long an implied warranty lasts or exclusions or limitations of incidental or consequential damage, so the limitations and exclusions in this warranty may not apply to you. This warranty gives you specific legal rights, and you may have other rights which vary from state to state. This warranty applies to consumer-owned installations only.

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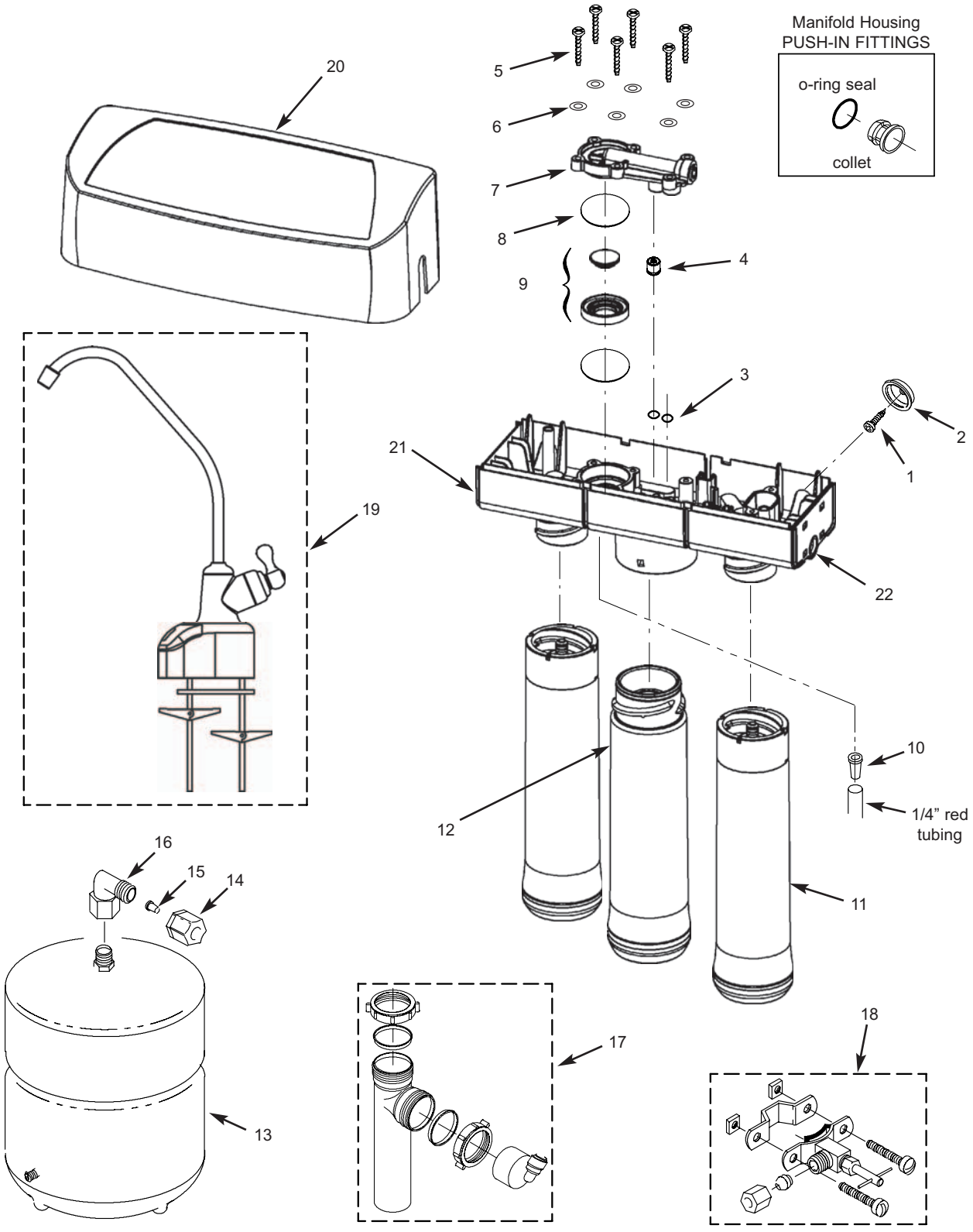
Troubleshooting

Problem: Chlorine taste and/or odor in the RO product water.			
Cause:	The level of chlorine in your water supply exceeds maximum limits, and has destroyed the Reverse Osmosis membrane.	***Correction:***	If the water supply contains more than 2.0 ppm of chlorine, additional filtering of the water supply to the Reverse Osmosis is needed. Correct this condition before doing maintenance on the Reverse Osmosis system.
Cause:	The prefilter is no longer removing chlorine from the water supply.	***Correction:***	Replace the prefilter, postfilter and Reverse Osmosis membrane cartridges. ***See Page 20.***
Problem: Other taste and/or odor.			
Cause:	Postfilter expended. ***Cause:*** Reverse Osmosis membrane cartridge expended.	***Correction:***	Replace the post filter cartridge. If taste and odor persists, replace the prefilter cartridge and Reverse Osmosis membrane cartridge. ***See Page 20.***
Cause:	Contamination in product water storage tank.	***Correction:***	Use sanitizing procedures. Replace pre and post filter cartridge. ***See page 16.***
Cause:	System contamination.	***Correction:***	Sanitize entire system. Call 1-866-986-3223 for instructions.
Problem: System makes product water too slowly.			
Cause:	Water supply to the Reverse Osmosis system not within specifications.	***Correction:***	Increase water pressure, precondition the water, etc., as needed to conform before doing maintenance on the Reverse Osmosis system.
Cause:	Prefilter or Reverse Osmosis membrane cartridges plugged with sediments.	***Correction:***	Replace the prefilter cartridge. If rate does not increase, replace the postfilter cartridge and Reverse Osmosis membrane cartridge. ***See Page 20.***
Problem: System makes lower amount of product water than usual.			
Cause:	Storage tank air-charge less than 5-7 psi.	***Correction:***	Open Reverse Osmosis faucet and drain tank until flow slows to a drip. Keep faucet open and check tank pressure. If low, pressurize to 6 psi. Close faucet to refill the tank.
Problem: High total dissolved solids (TDS) in product water			
Cause:	Water supply to the Reverse Osmosis system not within specifications.	***Correction:***	Increase water pressure, precondition the water, etc., as needed to conform before doing maintenance on the Reverse Osmosis system. ***Correction:*** Send treated and untreated water samples to a water analysis lab for testing. It is important to test both the treated and untreated water to determine system performance. If the TDS is not within the system's performance guidelines, replace the prefilter, post filter and RO membrane cartridges.
Problem: Continual water flow to drain and no product water.			
Cause:	Missing flow control insert in red drain tube or its corresponding port.	***Correction:***	Replace flow control insert. ***See Page 21.***

Troubleshooting

Problem: Water leaking from faucet airgap hole.			
Cause:	Drain side of faucet airgap (3/8" black tubing) plugged, restricted or incorrectly connected to drain point.	***Correction:***	Inspect and eliminate restriction or plug. Refer to installation instructions for proper drain connection. ***See Page 8 and 9.***
Problem: Faucet LED indicator light does not function after battery change.			
Cause:	Battery dead.	***Correction:***	Replace with new battery. ***See Page 21.***
Cause:	Battery installed incorrectly.	***Correction:***	Install battery correctly. ***See page 13 or 16.***
Problem: Water leaks at push connect fittings			
Cause:	Tubing not cut square.	***Correction:***	Cut tubing square. ***See Page 14 and 15.***
Cause:	Tubing not pushed in all the way.	***Correction:***	Push tubing in all the way. ***See page 14 and 15.***
Cause:	Tubing nicked.	***Correction:***	Remove tube from connection. Remove nicked portion by cutting tube to shorter length. Re-insert in connection. ***See page 14 and 15.***
Cause:	Outer tubing surface finish not smooth.	***Correction:***	Remove tube from connection. Remove problem area by cutting tube to shorter length. Re-insert in connection. ***See Page 14 and 15.***

Exploded View



Questions? Visit www.whirlpool.com or call Toll Free 1-866-986-3223

Parts List

Key No.	Part No.	Description
1	9006062	Screw (2 req'd)
2	9041700	Hanger Washer (2 req'd)
3	7183590	O-ring (2 req'd)
4	7272658	Check Valve
5	7273337	Screw (6 req'd)
6	7281330	Washer (6 req'd)
7	7273345	Automatic Shut-off Cover
8	7250876	Diaphragm Kit
9	7234325	Plunger & Spacer Ring Kit
10	7275185	Flow (Control) Insert
11	WHEERF5	Pre & Post Filter Cartridge
12	WHEERM5	RO Membrane Cartridge
13	7205326	Storage Tank
14	9003203	Nut, 3/8" Tubing
15	7131349	Insert, 3/8" Tubing
16	7201681	Connector, 1/4 NPT x 3/8 Jaco
17	7208489	Drain Adapter
18	7011272	Saddle Valve
19	7271872	Faucet, with Timer Base
20	7272755	Cover (order decal below)
-	7275410	Decal, Cover
21	7281005	Push-in Fitting Kit, 1/4" ◆ ●
22	7281013	Push-in Fitting Kit, 3/8" ◆ ●
■	7161823	Tubing, 1/4" x 20' - white ▲ ●
■	7161784	Tubing, 1/4" x 100' - white ▲ ●
■	7157280	Tubing, 3/8" x 20' - white ▲ ●
■	7161750	Tubing, 3/8" x 100' - white ▲ ●
■	7154818	Coin Battery
■	7273557	Tube Bend - 5/16"
■	7273565	Tube Bend - 3/8"
■	7279749	Dropper

◆ These o-rings and collets are for replacement in the manifold housing only. They do not fit the other push-in fitting on Key No. 16.

● Not included.

▲ Tubing lengths for remote installations, direct replacement for colored lengths of tubing.

■ Not illustrated.

To order replacement parts call toll free 1-866-986-3223, Monday - Friday, 8 am - 9 pm EST.

Manufactured and warranted by
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